DOCUMENT RESUME

ED 148 760 SP 011 978

AUTHOR Conley, John A.; Jackson, Clarence George
TITLE Is a Mandated Comprehensive Health Education Program a Guarantee of Successful Health Education?
PUB DATE 77
NOTE 10p.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Communicable Diseases; Consumer Education; *Curriculum Evaluation; Drug Abuse; *Educational Legislation; *Health Education; High School Students; Mental Health; *Program Improvement; *State Legislation

ABSTRACT

This document investigates the effectiveness and application of state laws relating to comprehensive health education. Many states mandate comprehensive health education and leave the choice of topics to be taught up to the individual school system or teacher. This study evaluates the health knowledge of a selected population of twelfth-grade students attending public school in South Carolina where such a mandate exists. The results of the study indicated that the students were weak in health knowledge. The areas of greatest weakness were in community health, stimulants and depressants, personal health, and communicable diseases. It is suggested that states need to give greater direction and support to encourage or require that exemplary programs be put into effect and that school systems need to constantly evaluate the level of achievement of the students in the area of health education. (JD)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY John A. Conley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS"

ED148760

IS A MANDATED COMPREHENSIVE HEALTH EDUCATION PROGRAM A GUARANTEE OF SUCCESSFUL HEALTH EDUCATION?

John A. Conley, Ph.D.
Clarence George Jackson, M.Ed.

According to a 1976 survey conducted by the American School Health Association under the auspices of Castile and Jerrick, sixteen states have mandated comprehensive health education programs. In addition, thirty-five states have mandated education in drugs, tobacco, and alcohol.[1] Strong educational programs have traditionally been found outside the South, and health education is no exception. Of course, some areas of content receive better instruction than others leading to a wide variation in knowledge among current health topics.

Washinik's 1957 New Jersey study of the overall health knowledge of high school seniors provided mean knowledge scores in the mid to upper sixty range, ranking in the fifty to sixty percentile range for the instrument utilized. Weaknesses were indicated in nutrition, safety and first aid, home health, and mental health.[2] The School Health Education Study (S.H.E.S.) conducted by Sliepcevich between 1961-63 investigating health knowledge, among other aspects, concluded that high school seniors in a national sample averaged almost 67% correct response. Again, greatest deficiencies were noted in nutrition, community health, chronic diseases, and consumer health.[3] Campbell and Early administered the 1966 edition of the Kilander Health Knowledge Test at the University of Texas in 1969. Students scored an average of 70.64 on the test.[4] Foster joined Campbell in a 1972 study using the revised Kilander-Leach instrument to indicate that those students from a higher socioeconomic group scored significantly better.(.05) than those of a lower socioeconomic status.[5] In 1976, Engs and Kirk used the same instrument to evaluate volunteer health intervention program workers.[6] Pigg tested over 4300 freshmen in 29 Georgia colleges with the Fast-Tyson instrument in 1976. Areas of weakness included alcohol, tobacco and drugs, exercise, relaxation and sleep, diseases, mental health, personal health, and human sexuality. The mean score for all students was 45.68 placing them in the 57th percentile for the instrument.[7]

The results of these and other studies raise a question about the effectiveness and application of state laws relating to comprehensive health education. Many states mandate comprehensive health education and leave the choice of topics to be taught up to the individual school system or individual teacher. This creates a hit and miss approach to the "comprehensiveness" of education. One such state is South Carolina which mandates only the topic of drugs, alcohol and tobacco under its comprehensive law.

Statement of the Problem

The Aiken County secondary school system is exemplary of others within the State of South Carolina. Health education has been traditionally taught by integrating it with biology, home economics, family living, psychology and physical education classes. No separate health education program exists to optimize the implementation of the State's "comprehensive" health education law.

SP011918

In order to consider separate health education classes, administrators of the system desired an evaluation of their senior students' health knowledge. This opportunity exemplifies a step which every state and individual school system should carry out periodically. Without continuous evaluation of the products of the existing educational system, effective change may never take place.

The purpose of this study was to evaluate the health knowledge of a selected population of twelfth grade students attending the public schools of Aiken County, South Carolina. Student health knowledge was to be examined for significant differences among schools, among content areas of health, and between sexes.

Methodology

The Kilander-Leach Health Knowledge Test, revised in 1972, with a coefficient of reliability of .83 for high school seniors, and with established norms based upon over 100,000 individual scores, was selected as the instrument to measure health knowledge of the high school seniors in this study. The test consists of 100 multiple choice questions, each having four foils. The instrument is divided into the following ten areas of health knowledge: personal health, nutrition, community health, consumer health, chronic diseases, communicable diseases, safety and first aid, family living, mental health, and stimulants and depressants.

A sample of the 1469 seniors attending seven public high schools of Aiken County, South Carolina, were selected for this study. The goal was to draw a 30 percent sample of the senior student population. The largest single collection of seniors was found in the English classes with approximately 80 percent of the population. While the utilization of this sample of the total population provides some bias against the other 20 percent, school administrative policies prohibited the complete randomization. In one school, the senior psychology class had to be utilized, and in one other school, study hall students represented the only population available to the researchers.

Once the population was selected at each school, a randomized sample was drawn from each group. Since there was wide variation among the size of the senior classes, some schools had more than a 30 percent sample taken in order to maintain a minimal size of potential cells for analysis purposes. In others which represented large senior classes, fewer than a 30 percent sample was taken. However, the overall sample size was 30.36 percent, totalling 446 subjects, 245 females and 201 males.

The examination was administered by the junior investigator at three sites and by a trained teacher at the other four sites. Standard procedures and directions were utilized for the fifty minute testing period. Answers were recorded on an IBM 303 answer sheet. Anonymity was assured with the omission of student names or identification number. Final data were screened by the investigator and each answer sheet was precoded with the school and sex of the respondent. Computer analysis provided means, range of scores, and standard deviations for the total test and for each area subscore for each school by the sex of the respondent and by all students combined. A one way ANOVA technique was utilized to determine differences that might exist among schools

on the total test and subtest scores. A two way ANOVA was utilized to determine differences that might exist among schools by the sex of the respondent for both the total test and subtest score. Where significance was detected at a minimum of the .05 level, the Fisher Least Significant Difference multiple range test was administered.

Findings

The results of this study indicate that the students were weak in health knowledge. The total mean score of 43.20 is well within the "weakness" category for the instrument norms. With a range of 3-83 and a standard deviation of 15.83, great variability is indicated. For the total population, moderate strength, indicated by a score of 52.14 percent, was demonstrated in the area of chronic disease. For all other nine areas, the percentage of correct response was below 50. (See Table 1) The areas of greatest weakness were community health, stimulants and depressants, personal health, and communicable diseases. In reality, all areas are far too weak to indicate success of the comprehensive health education mandate. While no significant difference was observed between male and female students on the total test (males 41.76, females 44.38), there were signigicant differences among the content areas and among the schools. Also, females scored significantly higher (.05) in nutrition, family living, consumer health, and chronic disease.

(Insert Table 1)

One school scored significantly higher (.001) than all other schools on the total test and in six of the ten content areas. In addition, in the other four areas, this school was grouped with some others to be in the leader position. There appeared to be a definite grouping of the schools regardless of the content areas in question. J high school was always at the top. L, N, and A consistently came in a middle grouping. The other three schools were almost always at the bottom of the score range.

(Insert Table 2)

Discussion

The obvious conclusion of this study is that the health knowledge of senior students in Aiken County, South Carolina, is generally poor and unacceptable, regardless of the subject content area. While a few favorable impressions appear, especially at the one school, it must be concluded that the mandated comprehensive health education program, including the mandated alcohol, tobacco, and drug education aspect, is not being successfully taught in Aiken County. Since the educational program is the same throughout the school district, differences among schools are based upon the implementation of the program and not the program itself. The obvious superiority of J school, which does not have any socioeconomic advantage, may be due to the enthusiasm of the teacher implementing the program.

If Aiken County is typical of the implementation levels throughout the state, South Carolina, as with many other states, needs a thorough evaluation of its health education program with corresponding improvement in the implementation of the law. It is comforting to see so many states mandate comprehensive health education. It is desirable that many states also mandate a wide variety of subject matter to be taught. However, this is small solace if the implementation is so poorly achieved. Programs on paper do not prove the pudding.

States need to give greater direction and support to encourage or require that exemplary programs be in fact in concrete evidence. School systems need to constantly evaluate the level of achievement of their end products and make the necessary adjustments to the program as indicated. Since the role of the individual teacher is perhaps the single most vital aspect to successful learning, schools should employ a certified health educator to teach all their health education as a separate and distinct subject. A qualified curriculum co-ordinator would be an added bonus. Health education must be taught on a block basis, hopefully for several semesters (quarters) throughout the educational career of the student.

The challenge is clear to the educators of Aiken, South Carolina. Hopefully others will take their lead and have the courage to evaluate the success or failure of their program. The authors cheer the administration of the Aiken County school system and challenge them to take the next obvious step. Interested researchers around the country can play their part in volunteering to assist the local school systems.

John A. Conley, Ph.E., is Chairman of the Department of Health and Safety at the University of Georgia, Athens, Georgia
Clarence George Jackson, M.Ed., is a graduate student at the University of Georgia.

TABLE 1

STUDENTS PERFORMANCE ON TEST BY CONTENT AREA

CONTENT AREA	NUMBER OF ITEMS	RANGE OF SCORES	MEANS	STANDARD DEVIATIONS	PERCENTAGE OF CORRECT RESPONSE*
Personal Health	21	0-19	8.44	3.44	40.19
Community Health	5	0-5	1.81	1.10	36.20
Nutrition	9	0-9	3.94	1.99	43.78
Family Living	7	0-7	3.09	1.76	44.14
First Aid	7	0-7	3.22	1.71	46.00
Safety	3	0-3	1.49	0.90	49.67
Consumer Health	11	0-11	5.22	2.29	47.45
Chronic Disease	7	0-7	3.65	1.61	52.14
Communicable Disease	14	0-13	5.79	2.83	41.36
Mental Health	7	0-7	3.04	1.43	43.43
Stimulant-Depressant	9	0-8	3.50	1.90	38.89
TOTAL	100	3-83	43.20	15.84	43.20

*In evaluating performances by content area, the investigator considered 0-50% weakness, 51-74% moderate strength and 75-100% strength.

TABLE 2

STUDENTS PERFORMANCE ON TOTAL TEST BY SCHOOL

SCHOOLS	NUMBER OF SUBJECT TESTED	MEANS	STANDARD DEVIATIONS	RANGE OF SCORES
J	24	53.00	10.51	28-70
R	41	36.07	12.66	16-77
W	15	42.00	14.63	18-67
L	48	43.00	13.21	19-75
LBC	48	31.18	15.63	3-72
N	101	45.16	11.95	19-69
A	169	45.94	17.73	8-83
TOTAL	446	43.20*	15.83	3-83

*In evaluating performances, the investigator considered 0-50% weakness, 51-74% moderate strength and 75-100% strength.

REFERENCES

1. Castile, Anne S. and Jerrick, Stephen J., School Health in America, A Survey of State School Health Programs, American School Health Association, Kent, Ohio, 1976, p. 10-11.

2. Washinik, Walter M., "What the High School Seniors Know About Health", Research Quarterly, Vol. 28, No.2, 1957, p.178-179.

3. Sleepcevich, Elena M., Summary Report of a Nationwide Study of Health Education, 1964, p.6-7.

4. Campbell, Donald E. and Early, Ronald G., "Comparison of Health Knowledge of Young Adults and Their Parents", Research Quarterly, Vol. 40, No. 4, Dec. 1968, p.676-681.

5. Campbell, Donald E. and Foster, Roy S., "Health Knowledge of Young Adults From Two Socioeconomic Levels", Research Quarterly, Vol. 42, No. 4, Dec. 1972, p.399-408.

6. Engs, Ruth and Kirk, Robert H., "Health Knowledge of Crisis Intervention Volunteers", Research Quarterly, Vol. 47, No. 1, March 1976, p.121-125.

7. Pigg, Morgan R., "The Georgia Health Education Study Report". University of Georgia, Athens, Georgia, 1976.